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| APPLICATION NO. | FILING DATE | FIRST-NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/888,943 | 06/25/2001 | William A. Mittelstadt | 56842USA4A.002 | 9282 |

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EXAMINER

PATEL, NIHIR B

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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3743

DATE MAILED: 01/12/2004

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/888,943

Applicant(s)

MITTELSTADT ET AL.

Examiner

Nihir Patel

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-- **Th MAILING DATE of this communication app ars on the cover sheet with the correspondence address --**
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) ____ is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 8-18 is/are rejected.
- 7) ☒ Claim(s) 6 and 7 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. In view of the appeal brief filed on October 24th, 2003, PROSECUTION IS HEREBY REOPENED.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Applicant's arguments with respect to claims 1 and 18 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 through 4 and 8 through 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Japuntich et al. US Patent No. 5,509,436. Referring to claim 1, Japuntich discloses a unidirectional fluid valve that comprises a valve body including a frame (50), a valve opening

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(52) through the frame (50), and a valve seat (40) extending from the frame (50) and at least partially surrounding the valve opening; and a valve flap (24) having a first portion attached to the frame and an adjacent second portion free to move from a first position where the second position is in contact with at least a part of the valve seat to a second position where at least part of the second portion is spaced from the valve seat, wherein the valve flap has a contour shape and further wherein at least a portion of the contour shape of the valve flap 24 is at least partially flattened when the valve flap 24 contacts the valve seat 40. Refer to figures 3-7 and columns 6, 7, and 8.

Referring to claim 2, Japuntich shows that the valve flap further comprises a first side spaced from a second side, and wherein the valve contour varies between the first and second sides. Refer to figures 3 through 7 and columns 7 and 8.

Referring to claim 3, Japuntich shows that the valve flap has a compound curvature. Refer to figure 3.

Referring to claim 4, Japuntich shows that the valve flap further comprises a first end spaced from a second end, and wherein the valve contour varies between the first and second ends. Refer to column 7 lines 55 through 67.

Referring to claim 8, Japuntich shows that the valve seat is generally planar and the valve flap has a curvature that causes a bias of the valve flap toward the valve seat to provide a seal between the valve flap and the valve seat. Refer to figures 3 and 4 and column 6 lines 33 through 67.

Referring to claim 9, Japuntich discloses an apparatus wherein at least a portion of the curvature of the valve flap is at least flattened when the valve flap contacts the valve seat (see figure 3).

Referring to claim 10, Japuntich shows that the bias of the valve flap toward the valve seat is sufficient to provide a seal between the valve flap and the valve seat in any orientation of the unidirectional valve. Refer to figures 3 and 4.

Referring to claim 11, Japuntich shows that the frame (50) of the valve body includes an angled portion adjacent the valve seat. Refer to figures 3, 4, and 7.

Referring to claim 12 and 13 Japuntich states that the valve can be used as an exhalation valve and inhalation valve. Refer to column 11 lines 10 through 15.

Referring to claim 14, Japuntich' invention provides a valve flap that is removably attached to the valve body. Refer to figure 3 and col. 10 lines 35-45.

Referring to claim 15, Japuntich discloses a unidirectional fluid valve that comprises a face mask (10) having at least one opening for receiving a unidirectional valve; and a unidirectional valve that comprises a valve body including a frame (50), a valve opening (52) through the frame (50), and a valve seat (40) extending from the frame and at least partially surrounding the valve opening; and a valve flap (24) having a first portion attached to the frame and an adjacent second portion free to move from a first position where the second portion is in contact with at least a part of the valve seat to a second position where at least part of the second portion is spaced from the valve seat, wherein the valve flap has a contour shape, and further wherein at least a portion of the contour shape of the valve flap is at least partially flattened when the valve flap 24 contacts the valve seat 40.

Referring to claim 16, Japuntich discloses an apparatus wherein the face mask is formed of a filtering material 18 (see column 5 lines 10-15).

Referring to claim 17 and 18 Japuntich states that the valve can be used as an exhalation valve and inhalation valve. Refer to column 11 lines 10 through 15.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japuntich et al. U.S. Patent No. 5,509,436 in view of Magidson et al. U.S. Patent No. 6,047,698.

Japuntich discloses the applicant's invention as claimed with the exception of providing a support element extending from the top surface of the valve flap.

Magidson discloses a unidirectional fluid valve that does provide a support element extending from the top surface of the valve flap. Therefore it would be obvious to modify Japuntich's invention by providing a support element extending from the top surface of the valve flap in order to have better control of the air flow.

Allowable Subject Matter

4. Claims 6 and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

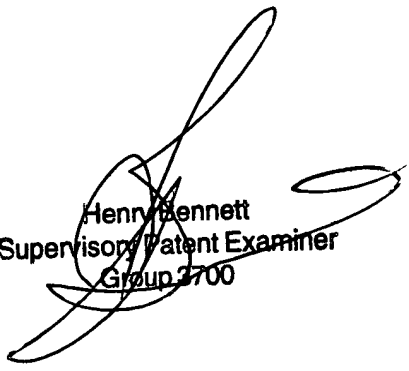
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Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Nihir Patel whose telephone number is (703) 306-3463. The examiner can normally be reached on Monday-Friday from 7:30 am to 4:30 pm. If attempts to reach the examiner by telephone are unsuccessful the examiner supervisor Henry Bennett can be reached at (703) 308-0101.

NP
January 8, 2004


Henry Bennett
Supervisory Patent Examiner
Group 2700